

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II

DATE: 1/7/88
SUBJECT: Bioassessment group meeting held November 24, 1987.



FROM: Roland Hemmett, Chief, Ambient Monitoring Section, ESD, Edison, N.J.
TO: Steve Luftig, Dir. ERD, Vince Pitruzzello, Ch., PSB, Alberto Barrerra, PM Ed
Als, PM Romona Pezzella, PM Janet Feldstein, PM

The November interagency work group meeting was the first of monthly scheduled meetings to address the applications of bioassessment to waste site studies. The following is a description of why the meetings are held and the minutes of the meeting written in recommendation format to be submitted as a service to the project managers of the sites discussed.

The goals included scientific recommendations to improve work plans and remedial investigations with particular focus on their characterization of waste sites, the pathways of contaminant migration, and the scope of study (relevant to natural resources).

Four EPA Project Managers participated in a brief review of four sites in EPA Region-2. The subjects of discussion were the identification of natural resources as potential natural receptors, the extent and nature of contamination, the potential injury to natural resources, (the use of) bioassessment, and the application of biomonitoring as a tool to produce technically defensible remedial investigations and feasibility studies (RI/FS). Attendees reviewed draft work plans (and draft RI/FS) prior to the meeting and came prepared to discuss the sites. Recommendations for each site were voiced.

Conclusions appended in writing and addressed to the Project Managers present ecological concerns, data needs, and recommendations for each site.

In attendance were:

Roland Hemmett, EPA-2 ESD, Chairman of the meeting
Royal Nadeau, EPA-2 ERT
William Patterson DOI, Boston, Mass.
Anita Miller, DOI, Philadelphia, Pa.
Lorraine Graves, EPA-2 EIB
Stan Gorski, NMFS, Sandy Hook
Thor Cutler, NOAA Coastal Resource Coordinator-EPA Region 2

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DATE:

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FROM:

Don Henne, DOI, Philadelphia, Pa.

TO: Ronald J. Mack, Gateway NRA

Michael Ludwig, NMFS, Milford, Conn.

Alyce Fritz, NOAA, CRC-3

Libby Herland, DOI, Boston, Mass.

Dan Sparks, FWS, Absecon, NJ

Anne Secorde, FWS, Cortlandt, NY

Robin Burr, FWS, Absecon, NJ

David Charters, EPA-2 ERT

Jim Kurtenback, EPA-2 ERT

Mike Solecki, NOAA

Peter Brussock, NJDEP

Steve Luftig, Dir. ERRD

Vince Petruzzello, SPB, EPA-2

Future meetings will be held on a monthly basis. The next meeting will be held in Room 730, EPA-2 on Thursday, January 21, 1987.

Attachments follow for each of the four sites, DeRwal, Port Washington Landfill, Denzer and Schaeffer, and Scientific Chemical Processing (SCP) discussed at the meeting.

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II**

DATE:

1/7/88

SUBJECT: Scientific Chemical Processing (SCP) Bioassessment group meeting
held November 24, 1987.

FROM: Roland Hemmett, Chief, Ambient Monitoring Section, ESD, Edison, N.J.

TO: Janet Feldstein, PM

ECOLOGICAL CONCERNS:

Resources at risk include those of trusteeship under NOAA, DOI, and the State of New Jersey. The site is bordered by Peach Island Creek which is tidal, salt and connects to Berry's Creek which may be impacted to the Hackensack River and Newark Bay. Scientific Chemical Processing site has very limited sampling on the site, including 17 locations, three which penetrate the shallow clay layer, no deep information, and insufficient data to determine extent of contamination offsite, particularly into surface water pathways. Leachate was visibly seen leaving the site. The determination of EOC, seeps, and offsite migration is of primary concern. Furthermore, the site is not protected from erosion.

DATA NEEDS:

1) Extent Of Contamination (EOC)

Sampling in Peach Island Creek and Berry's Creek is needed both for water and sediment samples.

2) The gradient of contaminants needs to be measured. A minimum of 4 sample locations upstream, 3 sample locations adjacent to the site and 4 sample locations downstream in Peach Island Creek are needed.

3) The mouth of Peach Island Creek (confluence) with Berry's Creek needs to be a sample location.

4) Sediment location samples should be taken in triplicate to establish a statistical base.

5) Grain size and total organic carbon (TOC) should be measured for each sample.

6) Chemical tests should include priority pollutants and special consideration should be given for PCB's and metals concentration analysis.

7) The chemical EOC will precede a bioassay study in a phased approach for all contaminated areas.

8) Control samples are needed for background which may require the measurement of a "like" location for the background values.

RECOMMENDATIONS:

1) A coordinated and phased effort with the ongoing State of New Jersey

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FROM: studies of other superfund sites in the Berry's Creek area is recommended. The State of New Jersey study includes over 2000 sample locations and will address the cumulative impact to the natural resources.

2) NOAA recommends a dilution series EC50 or LC50 of the site leachate for proper contaminant evaluation due to possible undetected toxic substances from a lack of analytic procedure, too large molecular weight, or not on the target compound list; and synergistic effects of a complex mixture of contaminants.

3) Solid phase Daphnia and liquid phase Daphnia should be used for invertebrate bioassays.

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